

CLAIM AMENDMENTS

1. (Currently Amended) A method for communicating an alarm in a computer network, comprising:  
a network device detecting an event within the network device on the computer network, wherein the network device is included in a particular site in a plurality of sites, and wherein the event results from a change in operation of the network device;  
in response to detecting the event, the network device generating and propagating an alarm to an alarm identification component that is hosted within the network device;  
the alarm identification component augmenting the alarm with identification information to create an augmented alarm, wherein the identification information uniquely identifies the particular site among the plurality of sites; and  
transmitting the augmented alarm to a network operations center for the computer network, wherein the network operations center is external to the particular site and the network operations center processes alarms for each site in the plurality of sites,  
wherein augmenting the alarm further comprises:  
determining whether the identification information can be created based on a table that maps network device addresses to identification information;  
when the identification information can not be created based on the table,  
determining whether the identification information can be created based on an address of an edge router for the particular site; and  
when the identification information can not be created based on an address of the edge router for the particular site, creating the identification information using default identification information.
2. (Previously Presented) The method of Claim 1, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely

identifies the particular site among the plurality of sites and the second portion includes a MAC address of the network device.

3. (Previously Presented) The method of Claim 1, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion uniquely identifies the network device on the computer network.
4. (Previously Presented) The method of Claim 1, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes an IP address for the network device on the computer network.
5. (Previously Presented) The method of Claim 1, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes geographical information associated with the particular site in which the alarm originated.
6. (Previously Presented) The method of Claim 1, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes network information associated with the particular site in which the alarm originated.
7. (Currently Amended) The method of Claim 1, wherein the alarm identification component is a first alarm identification component and a second alarm identification component is hosted by an edge router associated with the particular site.
8. (Previously Presented) The method of Claim 1, wherein the alarm identification component is a first alarm identification component, each site in the plurality of sites is a local area network, a second alarm identification component is hosted by a router that communicates with one or more edge routers, and wherein each of the one or more edge routers is associated with a different site in the plurality of sites.

9. (Previously Presented) The method of Claim 1, wherein the alarm identification component is a first alarm identification component, the network device is a first network device, and a second alarm identification component is hosted by a second network device that is included in the particular site.
10. (Previously Presented) The method of Claim 1, wherein the step of the alarm identification component augmenting the alarm with identification information comprises:  
conveying the identification information in a VarBind portion of a SNMP message associated with the alarm.
11. (Previously Presented) The method of Claim 1, wherein the step of detecting the event comprises:  
detecting a condition using a SNMP agent that is in the network device.
12. (Previously Presented) The method of Claim 1, wherein the step of propagating the alarm to the alarm identification component is performed by transmission of a SNMP message, a Syslog event, or a CNS bus event.
13. (Previously Presented) The method of Claim 1 wherein: the network device is selected from the group consisting of: a switch, a router, an IP phone, a call manager component, a voice mail component, and an event monitoring component.
14. (Previously Presented) The method of Claim 1, further comprising the step of:  
creating the identification information based on an address of the network device on the computer network.
15. (Previously Presented) The method of Claim 1, further comprising the step of:  
creating the identification information based on an address of an edge router for the particular site.
16. (Previously Presented) The method of Claim 1, further comprising the step of:  
creating the identification information based on a table that maps network device addresses to identification information.

17. (Canceled)
18. (Previously Presented) The method of Claim 1, wherein the identification information is the same for each alarm originating in the particular site.
19. (Previously Presented) The method of Claim 1, wherein the particular site uses network address translation.
20. (Previously Presented) The method of Claim 1, wherein the network device is a first network device, wherein a second network device is included in a different site in the plurality of sites than the particular site that includes the first device, wherein the first device and the second device are associated with an IP address that is the same for both the first device and the second device, and wherein the identification information allows the network operations center to determine that the augmented alarm is for the first network device instead of the second network device.
21. (Previously Presented) The method of Claim 1, wherein the augmented alarm is included in a plurality of augmented alarms received at the network operations center, wherein the plurality of augmented alarms includes one or more augmented alarms from each site of the plurality of sites, wherein said each one or more augmented alarms is based on identification information that uniquely identifies said each site among the plurality of sites, and wherein the network operations center creates a view comprising a subset of the plurality of augmented alarms corresponding to the particular site by filtering the plurality of augmented alarms based on the identification information that uniquely identifies the particular site among the plurality of sites.
22. (Currently Amended) A computer-readable storage medium ~~carrying-storing~~ one or more sequences of instructions for communicating an alarm in a computer network, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:  
a network device detecting an event within the network device on the computer network, wherein the network device is included in a particular site in a plurality of sites, and wherein the event results from a change in operation of the network device;

in response to detecting the event, the network device generating and propagating an alarm to an alarm identification component that is hosted within the network device;

the alarm identification component augmenting the alarm with identification information to create an augmented alarm, wherein the identification information uniquely identifies the particular site among the plurality of sites; and

transmitting the augmented alarm to a network operations center for the computer network, wherein the network operations center is external to the particular site and the network operations center processes alarms for each site in the plurality of sites,

wherein augmenting the alarm further comprises:

determining whether the identification information can be created based on a table that maps network device addresses to identification information;

when the identification information can not be created based on the table,

determining whether the identification information can be created based on an address of an edge router for the particular site; and

when the identification information can not be created based on an address of the edge router for the particular site, creating the identification information using default identification information.

23. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes a MAC address of the network device.
24. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the identification information comprises a first portion and a second portion, wherein

the first portion uniquely identifies the particular site among the plurality of sites and the second portion uniquely identifies the network device on the computer network.

25. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes an IP address for the network device on the computer network.
26. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes geographical information associated with the particular site in which the alarm originated.
27. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes network information associated with the particular site in which the alarm originated.
28. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the alarm identification component is a first alarm identification component and a second alarm identification component is hosted by an edge router associated with the particular site.
29. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the alarm identification component is a first alarm identification component, each site in the plurality of sites is a local area network, a second alarm identification component is hosted by a router that communicates with one or more edge routers, and wherein each of the one or more edge routers is associated with a different site in the plurality of sites.
30. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the alarm identification component is a first alarm identification component, the

network device is a first network device, and a second alarm identification component is hosted by a second network device that is included in the particular site.

31. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the step of the alarm identification component augmenting the alarm with identification information comprises:  
conveying the identification information in a VarBind portion of a SNMP message associated with the alarm.

32. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the step of detecting the event comprises:  
detecting a condition using a SNMP agent that is in the network device.

33. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the step of propagating the alarm to the alarm identification component is performed by transmission of a SNMP message, a Syslog event, or a CNS bus event.

34. (Currently Amended) The computer-readable storage medium of Claim 22, wherein: the network device is selected from the group consisting of: a switch, a router, an IP phone, a call manager component, a voice mail component, and an event monitoring component.

35. (Currently Amended) The computer-readable storage medium of Claim 22, wherein execution of the one or more sequences of instructions on each computer-readable storage medium by the one or more processors causes the one or more processors to further perform the step of:  
creating the identification information based on an address of the network device on the computer network.

36. (Currently Amended) The computer-readable storage medium of Claim 22, wherein execution of the one or more sequences of instructions on each computer-readable storage medium by the one or more processors causes the one or more processors to further perform the step of:  
creating the identification information based on an address of an edge router for the particular site.

37. (Currently Amended) The computer-readable storage medium of Claim 22, wherein execution of the one or more sequences of instructions on each computer-readable storage medium by the one or more processors causes the one or more processors to further perform the step of:  
creating the identification information based on a table that maps network device addresses to identification information.
38. (Canceled)
39. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the identification information is the same for each alarm originating in the particular site.
40. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the particular site uses network address translation.
41. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the network device is a first network device, wherein a second network device is included in a different site in the plurality of sites than the particular site that includes the first device, wherein the first device and the second device are associated with an IP address that is the same for both the first device and the second device, and wherein the identification information allows the network operations center to determine that the augmented alarm is for the first network device instead of the second network device.
42. (Currently Amended) The computer-readable storage medium of Claim 22, wherein the augmented alarm is included in a plurality of augmented alarms received at the network operations center, wherein the plurality of augmented alarms includes one or more augmented alarms from each site of the plurality of sites, wherein said each one or more augmented alarms is based on identification information that uniquely identifies said each site among the plurality of sites, and wherein creates a view comprising a subset of the plurality of augmented alarms corresponding to the

particular site by filtering the plurality of augmented alarms based on the identification information that uniquely identifies the particular site among the plurality of sites.

43. (Currently Amended) A system for communicating an alarm in a computer network, comprising:

means for a network device detecting an event within the network device on the computer network, wherein the network device is included in a particular site in a plurality of sites, and wherein the event results from a change in operation of the network device;

means for the network device generating and propagating an alarm to an alarm identification means that is hosted within the network device, in response to detecting the event;

means for the alarm identification means augmenting the alarm with identification information to create an augmented alarm, wherein the identification information uniquely identifies the particular site among the plurality of sites;

~~and~~

means for transmitting the augmented alarm to a network operations center for the computer network, wherein the network operations center is external to the particular site and the network operations center processes alarms for each site in the plurality of sites,

means for determining whether the identification information can be created based on a table that maps network device addresses to identification information;

means for determining whether the identification information can be created based on an address of an edge router for the particular site when the identification information can not be created based on the table; and

means for creating the identification information using default identification information when the identification information can not be created based on an address of the edge router for the particular site.

44. (Previously Presented) The system of Claim 43, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely

identifies the particular site among the plurality of sites and the second portion includes a MAC address of the network device.

45. (Previously Presented) The system of Claim 43, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion uniquely identifies the network device on the computer network.
46. (Previously Presented) The system of Claim 43, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes an IP address for the network device on the computer network.
47. (Previously Presented) The system of Claim 43, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes geographical information associated with the particular site in which the alarm originated.
48. (Previously Presented) The system of Claim 43, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes network information associated with the particular site in which the alarm originated.
49. (Previously Presented) The system of Claim 43, wherein the alarm identification means is a first alarm identification means and a second alarm identification means is hosted by an edge router associated with the particular site.
50. (Previously Presented) The system of Claim 43, wherein the alarm identification means is a first alarm identification means, each site in the plurality of sites is a local area network, a second alarm identification means is hosted by a router that communicates with one or more edge routers, and wherein each of the one or more edge routers is associated with a different site in the plurality of sites.

51. (Previously Presented) The system of Claim 43, wherein the alarm identification means a first alarm identification means, the network device is a first network device, and a second alarm identification means is hosted by a second network device that is included in the particular site.
52. (Previously Presented) The system of Claim 43, wherein the means for the alarm identification means augmenting the alarm with identification information comprises:  
means for conveying the identification information in a VarBind portion of a SNMP message associated with the alarm.
53. (Previously Presented) The system of Claim 43, wherein the means for detecting the event comprises:  
means for detecting a condition using a SNMP agent that is in the network device.
54. (Previously Presented) The system of Claim 43, wherein the means for propagating the alarm to the alarm identification means is performed by a means for transmitting a SNMP message, a Syslog event, or a CNS bus event.
55. (Previously Presented) The system of Claim 43, wherein: the network device is selected from the group consisting of: a switch, a router, an IP phone, a call manager component, a voice mail component, and an event monitoring component.
56. (Previously Presented) The system of Claim 43, further comprising:  
means for creating the identification information based on an address of the network device on the computer network.
57. (Previously Presented) The system of Claim 43, further comprising:  
means for creating the identification information based on an address of an edge router for the particular site.
58. (Previously Presented) The system of Claim 43, further comprising:  
means for creating the identification information based on a table that maps network device addresses to identification information.

59. (Canceled)
60. (Previously Presented) The system of Claim 43, wherein identification information is the same for each alarm originating in the particular site.
61. (Previously Presented) The system of Claim 43, wherein the particular site uses network address translation.
62. (Previously Presented) The system of Claim 43, wherein the network device is a first network device, wherein a second network device is included in a different site in the plurality of sites than the particular site that includes the first device, wherein the first device and the second device are associated with an IP address that is the same for both the first device and the second device, and wherein the identification information allows the network operations center to determine that the augmented alarm is for the first network device instead of the second network device.
63. (Previously Presented) The system of Claim 43, wherein the augmented alarm is included in a plurality of augmented alarms received at the network operations center, wherein the plurality of augmented alarms includes one or more augmented alarms from each site of the plurality of sites, wherein said each one or more augmented alarms is based on identification information that uniquely identifies said each site among the plurality of sites, and wherein the network operations center creates a view comprising a subset of the plurality of augmented alarms corresponding to the particular site by filtering the plurality of augmented alarms based on the identification information that uniquely identifies the particular site among the plurality of sites.
64. (Currently Amended) A system for communicating an alarm in a computer network, comprising:  
one or more processors; and  
one or more computer-readable storage mediums that each carry one or more sequences of instructions for communicating an alarm in a computer network, wherein execution of the one or more sequences of instructions on each computer-readable storage medium by the one or more processors causes the one or more processors to perform the steps of:

a network device detecting an event within the network device on the computer network, wherein the network device is included in a particular site in a plurality of sites, and wherein the event results from a change in operation of the network device;

in response to detecting the event, the network device generating and propagating an alarm to an alarm identification component that is hosted within the network device;

the alarm identification component augmenting the alarm with identification information to create an augmented alarm, wherein the identification information uniquely identifies the particular site among the plurality of sites; and

transmitting the augmented alarm to a network operations center for the computer network, wherein the network operations center is external to the particular site and the network operations center processes alarms for each site in the plurality of sites, wherein the step of augmenting the alarm further comprises:  
determining whether the identification information can be created based on a table that maps network device addresses to identification information;  
when the identification information can not be created based on the table,  
determining whether the identification information can be created based on an address of an edge router for the particular site; and  
when the identification information can not be created based on an address of the edge router for the particular site, creating the identification information using default identification information.

65. (Previously Presented) The system of Claim 64, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes a MAC address of the network device.
66. (Previously Presented) The system of Claim 64, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely

identifies the particular site among the plurality of sites and the second portion uniquely identifies the network device on the computer network.

67. (Previously Presented) The system of Claim 64, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes an IP address for the network device on the computer network.
68. (Previously Presented) The system of Claim 64, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes geographical information associated with the particular site in which the alarm originated.
69. (Previously Presented) The system of Claim 64, wherein the identification information comprises a first portion and a second portion, wherein the first portion uniquely identifies the particular site among the plurality of sites and the second portion includes network information associated with the particular site in which the alarm originated.
70. (Previously Presented) The system of Claim 64, wherein the alarm identification component is a first alarm identification component and a second alarm identification component is hosted by an edge router associated with the particular site.
71. (Previously Presented) The system of Claim 64, wherein the alarm identification component is a first alarm identification component, each site in the plurality of sites is a local area network, a second alarm identification component is hosted by a router that communicates with one or more edge routers, and wherein each of the one or more edge routers is associated with a different site in the plurality of sites.
72. (Previously Presented) The system of Claim 64, wherein the alarm identification component is a first alarm identification component, the network device is a first network device, and a second alarm identification component is hosted by a second network device that is included in the particular site.

73. (Previously Presented) The system of Claim 64, wherein the step of the alarm identification component augmenting the alarm with identification information comprise:  
conveying the identification information in a VarBind portion of a SNMP message associated with the alarm.
74. (Previously Presented) The system of Claim 64, wherein the step of detecting the event comprises:  
detecting a condition using a SNMP agent that is in the network device.
75. (Previously Presented) The system of Claim 64, wherein the step of propagating the alarm to the alarm identification component is performed by transmission of a SNMP message, a Syslog event, or a CNS bus event.
76. (Currently Amended) The system of Claim 64, wherein: execution of the one or more sequences of instructions on each computer-readable storage medium by the one or more processors causes the one or more processors to further perform the step of: in response to detecting the event associated with the device, generating the alarm at one member the network device is selected from the group consisting of: a switch, a router, an IP phone, a call manager component, a voice mail component, and an event monitoring component.
77. (Currently Amended) The system of Claim 64, wherein execution of the one or more sequences of instructions on each computer-readable storage medium by the one or more processors causes the one or more processors to further perform the step of: creating the identification information based on an address of the network device on the computer network.
78. (Currently Amended) The system of Claim 64, wherein execution of the one or more sequences of instructions on each computer-readable storage medium by the one or more processors causes the one or more processors to further perform the step of: creating the identification information based on an address of an edge router for the particular site.

79. (Currently Amended) The system of Claim 64, wherein execution of the one or more sequences of instructions on each computer-readable storage medium by the one or more processors causes the one or more processors to further perform the step of: creating the identification information based on a table that maps network device addresses to identification information.
80. (Canceled)
81. (Previously Presented) The system of Claim 64, wherein the identification information is the same for each alarm originating in the particular site.
82. (Previously Presented) The system of Claim 64, wherein the particular site uses network address translation.
83. (Previously Presented) The system of Claim 64, wherein the network device is a first network device, wherein a second network device is included in a different site in the plurality of sites than the particular site that includes the first device, wherein the first device and the second device are associated with an IP address that is the same for both the first device and the second device, and wherein the identification information allows the network operations center to determine that the augmented alarm is for the first network device instead of the second network device.
84. (Previously Presented) The system of Claim 64, wherein the augmented alarm is included in a plurality of augmented alarms received at the network operations center, wherein the plurality of augmented alarms includes one or more augmented alarms from each site of the plurality of sites, wherein said each one or more augmented alarms is based on identification information that uniquely identifies said each site among the plurality of sites, and wherein the network operations center creates a view comprising a subset of the plurality of augmented alarms received at the network operations center by filtering the plurality of augmented alarms using a set of criteria.